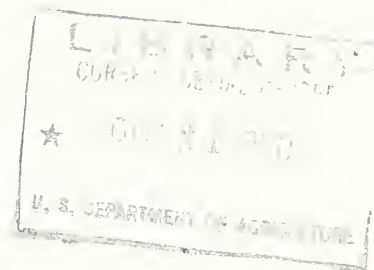


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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division



COLOR CODE
FOR RELATING COLOR MEASUREMENTS OF RAW COTTON
TO COLOR IN GRADE STANDARDS

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COLOR CODE FOR RELATING COLOR MEASUREMENTS 1/
OF RAW COTTON TO COLOR IN GRADE STANDARDS

In reports of Cotton Fiber and Processing Test Results for Crop of 1960 the color of raw cotton is reported in a single code number that is converted from R_d and b instrument values reported in previous years as measures of reflectance and yellowness. As stated in the first of the reports published this year (August 8, 1960), this code provides a closer identification of color measurements with the color of official grade standards than do the R_d and b color measurements used in previous years.

The code consists of three numbers: The first relates to grade (3, Good Middling; 4, Strict Middling, etc.); the second number relates to placement in the upper half of the grade, for example, 30 for the top half of GM, 35 for the lower half of GM, 40 for the top of SM, etc.; the third number, beginning with 1 to represent the whitest side of the grade, increases through the White and Spotted grades to 9 for the color of Yellow Stained grades. The number 401 thus designates SM on the high side of the grade, and very white—a color typical of SM cottons from California. The code number 403 designates SM on the high side of the grade for reflectance but more yellow in color, typical of SM cottons from the Texas and Oklahoma area. The number 457 indicates SM on the low side, with 7 degrees of yellow color, enough yellow to put the sample into a Tinged grade.

Figures 1 and 2 illustrate this code and its use in relation to color measurements made on the Nickerson-Hunter Cotton Colorimeters in terms of both the R_d and b scales, and the grade standards for American Upland cottons.

1/ In relation to color studies of cotton, a series of diagrams and tables prepared for use at the 1959 Universal Grade Standards Conference contain information useful to anyone interested in this subject. These and a 1960 report are available from the Cotton Division, AMS, as follows:

GRADE STANDARDS STUDIES:

- No. 1. Color Measurements of Grade Standards, 1952-1959.
- No. 2. Summary of Color Measurements from Surveys of Cotton Classed in 8 Crop Years, 1951 to 1958.
- No. 3. Trash and Color.
- No. 4. Color Change in Storage.

COTTON COLORIMETER, an aid in extending knowledge of cotton quality.
Presented at ACMI Open House, Clemson, S. C., May 4, 1960.

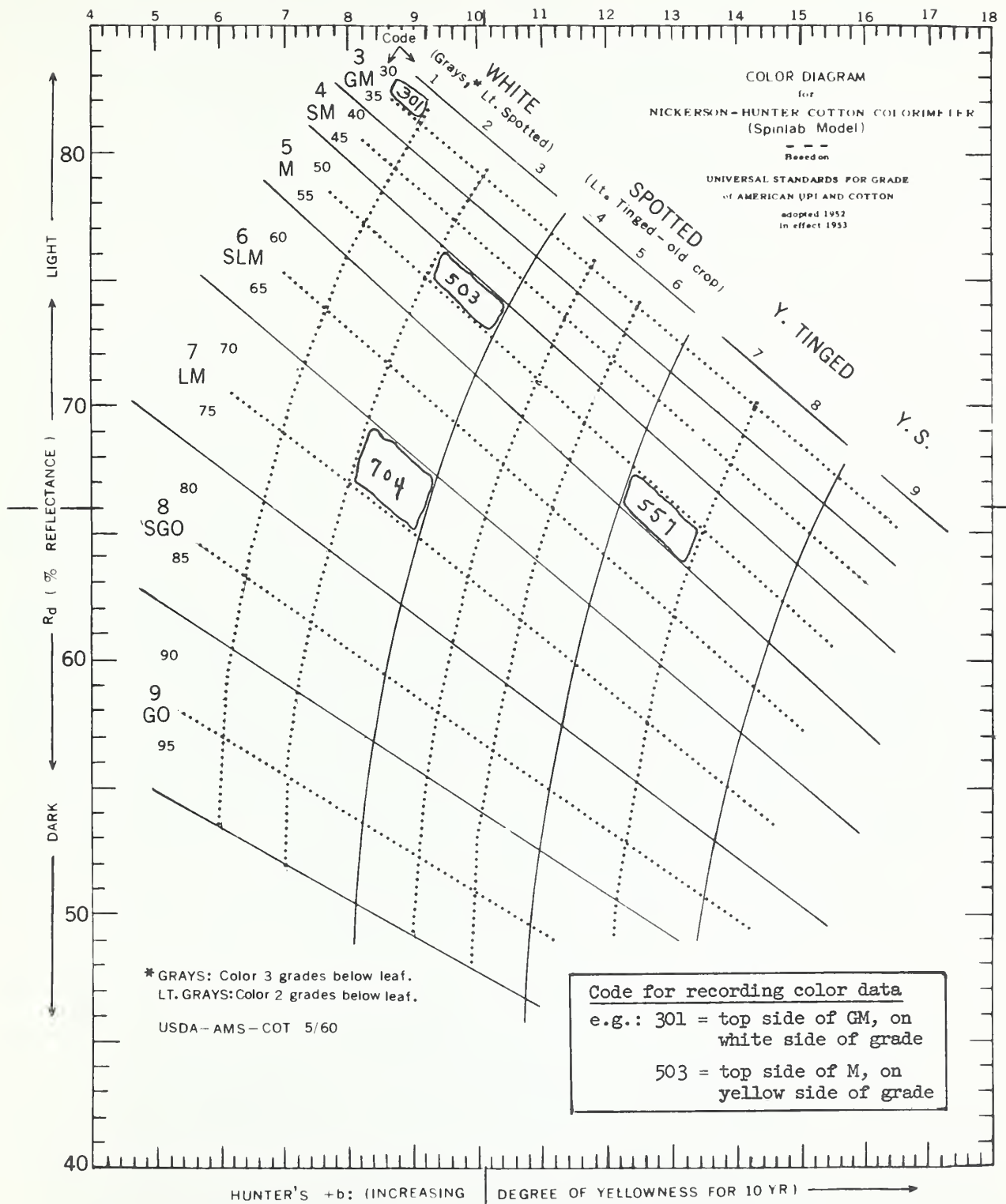


FIG. 1.--CODE FOR RELATING COLOR MEASUREMENTS OF RAW COTTON TO COLOR IN GRADE STANDARDS. Color measurements may be reported in terms of R_d and b , in terms of equivalent grade, or in terms of the code illustrated above, according to the precision that may be required.

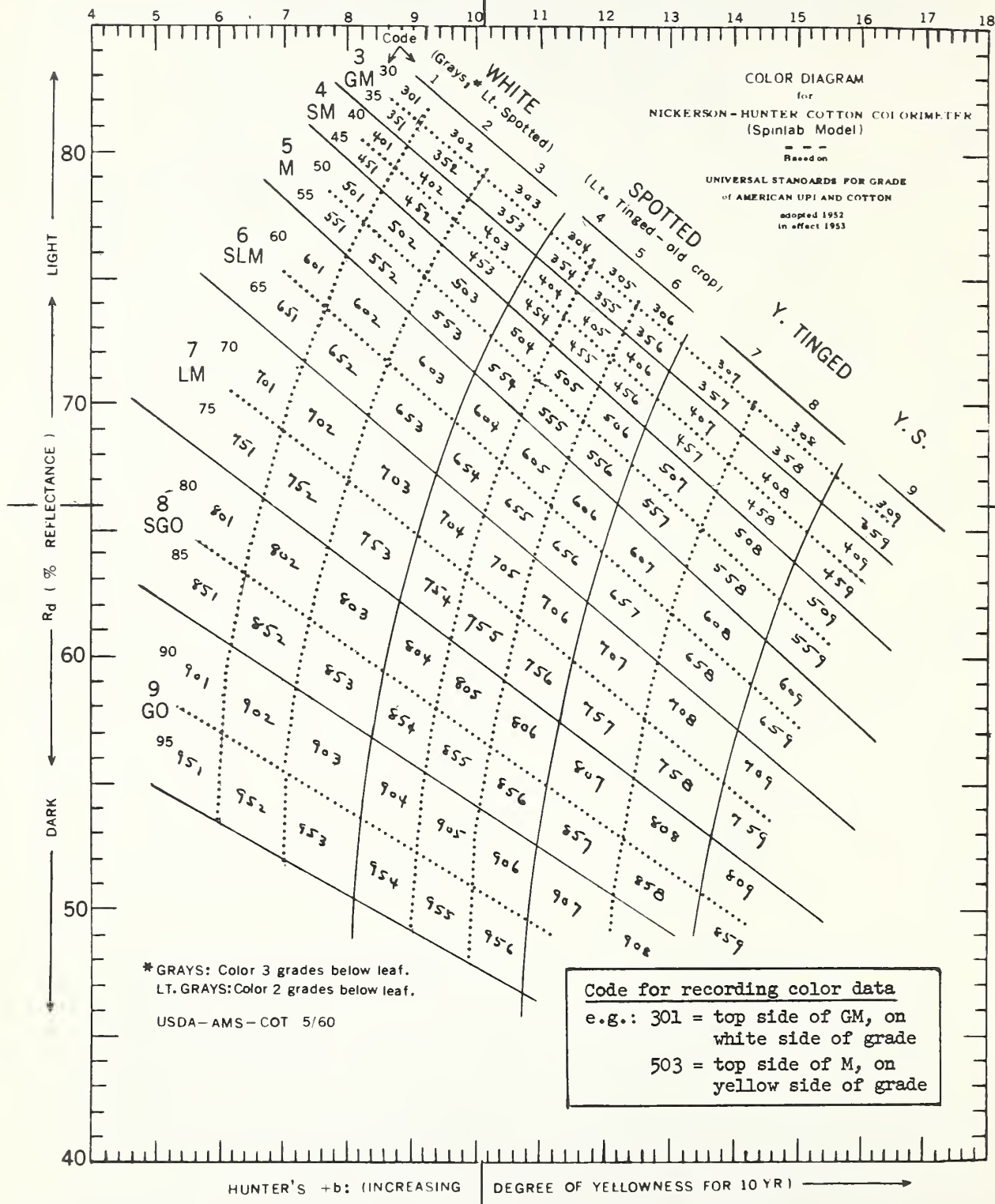


FIG. 2.--CODE FOR RECORDING COLOR MEASUREMENTS OF RAW COTTON SAMPLES.

Application of code shown in detail for entire color range of American Upland cottons.

